

Figure 1: The graph shows the concentration of palmitated protein G (or lipidated antibody binding protein [LAB-P]) on the x-axis and the relative fluorescent intensity in arbitrary units on the y-axis. The insert shows fluorescent micrographs of representative cells coated with PPG at the indicated concentrations.

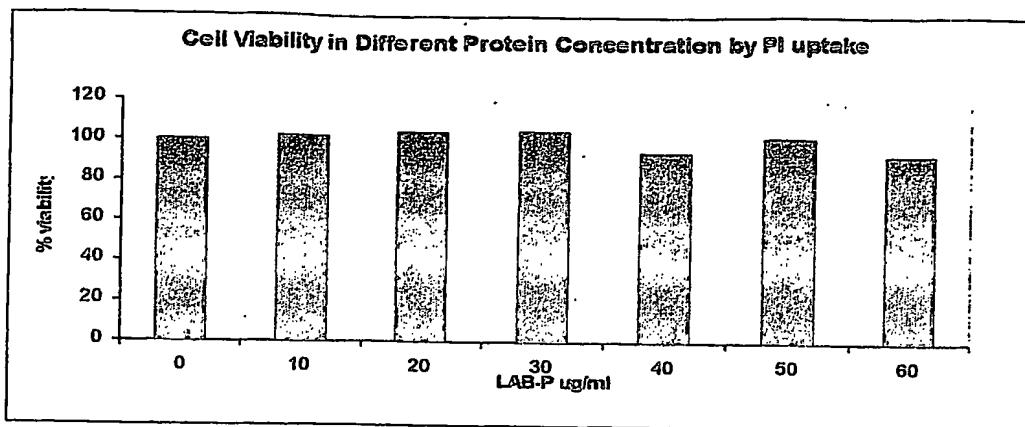


Figure 2: Cell viability is indicated as a percentage of the starting cell number prior to treating with LAB-P (PPG). No significant loss of cell numbers were observed at any concentration of LAB-P that was used.

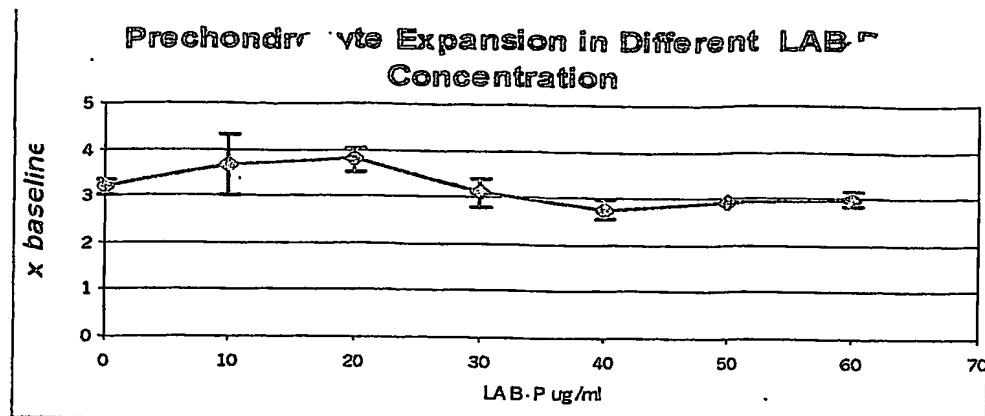
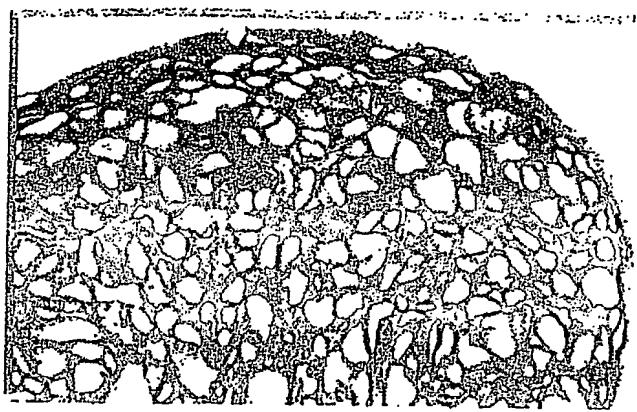


Figure 3: Cells coated with different concentrations of LAB-P were cultured for 1 week in standard culture medium and were shown to expand approximately 3 fold (y-axis) at all coating concentrations tested.



which is visible in some of the lacunae.

Figure 4: Pre-chondrocytes coated with 60 ug/ml of PPG were cultured in chondrogenic conditions for 3 weeks, harvested, fixed, embedded and sectioned and then stained for collagen type II. The intense purple staining indicates the presence of type II collagen indicating that the coating procedure has not interfered with the ability of these cells to differentiate into chondrocytes. The sample was counter-stained with Fast Green,

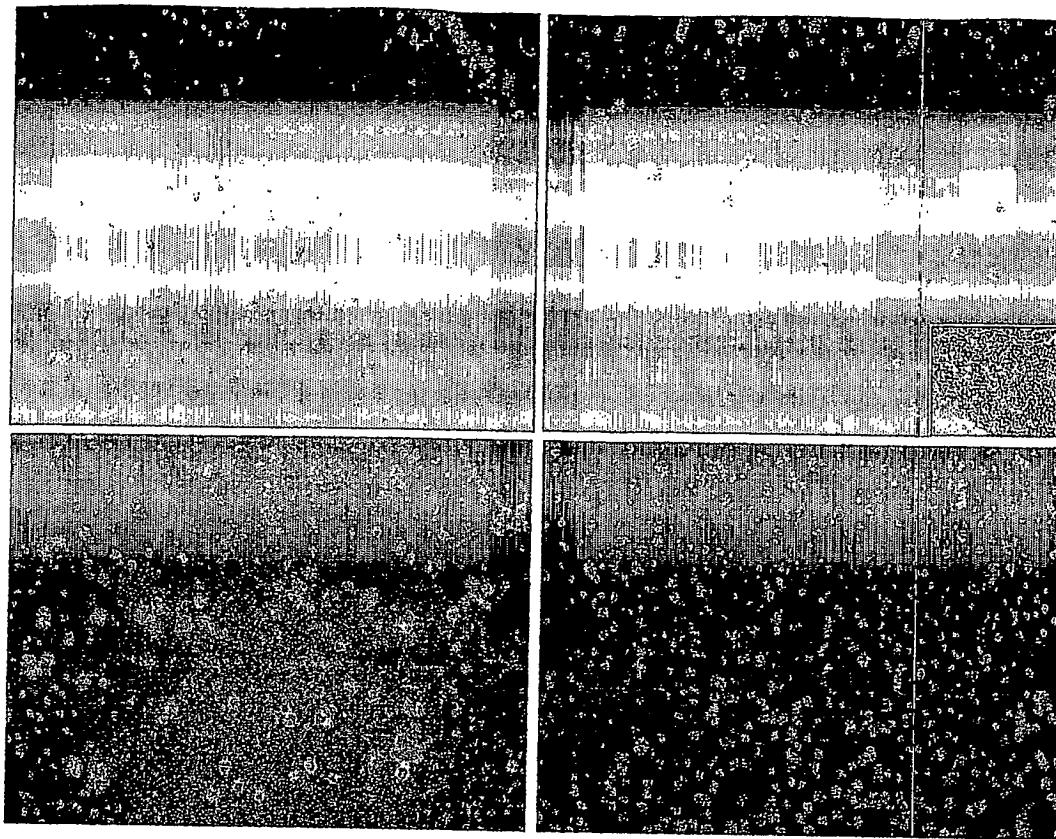


Figure 5: Targeting of Vybrant-stained cells to frozen sections of cartilage. Vybrant cells (green) are shown on the surface of rabbit articular cartilage sections; cartilage nuclei are stained red with propidium iodine. Upper left shows control cells (PPG only); only a few cells adhere. Upper right shows cells coated with PPG + anti-type II collagen antibody; lower left, PPG + anti-chondroitin-4-sulfate; lower right, PPG + anti-keratan sulfate. Each of the three samples incubated with cells containing the targeting antibody had more Vybrant-positive cells than did control.

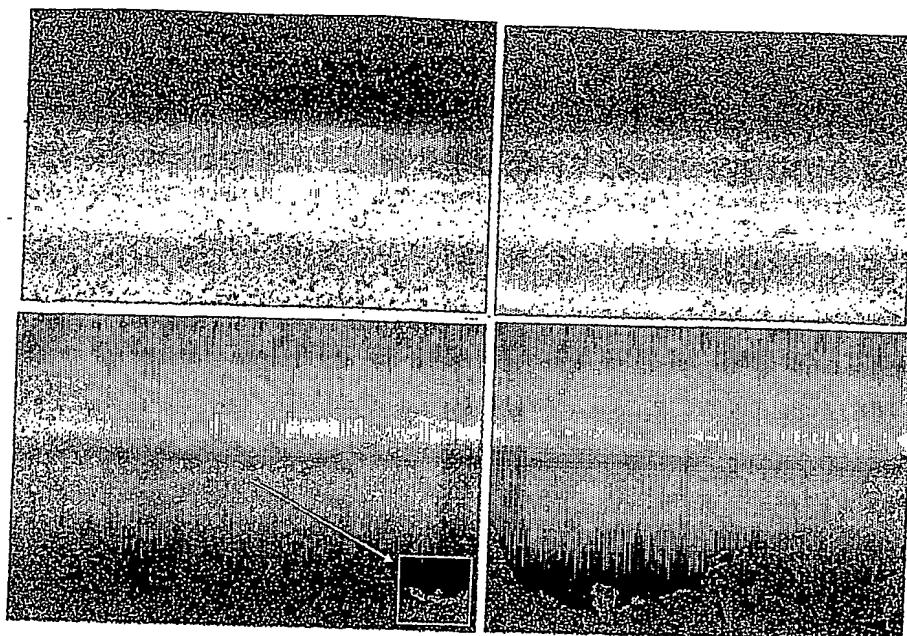


Figure 6: Explants of rabbit articular cartilage incubated with Vybrant-stained cells. Upper left shows cells coated with PPG only. Only one cell is visible on the left side of the u-shaped defect. Upper right is chondroitin-4-sulfate antibody; lower left-collagen II (arrow points to insert showing a higher magnification of Vybrant-positive cells), and lower right is both antibodies in combination. Each of the antibody coated cell preparations showed greater numbers of positive cells in the defects than was observed in the PPG only control.

Figure 7

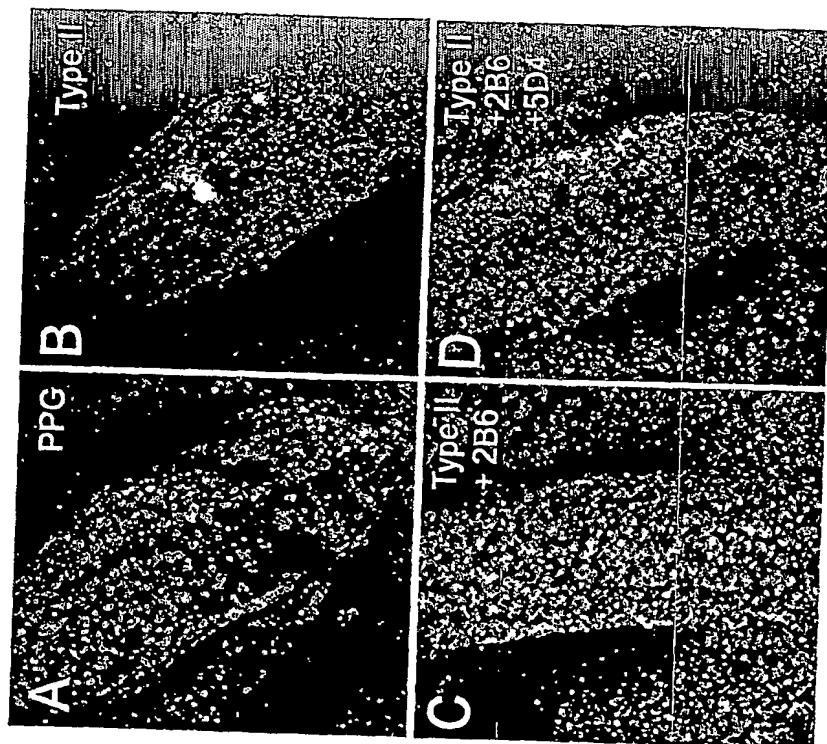


Figure 8

